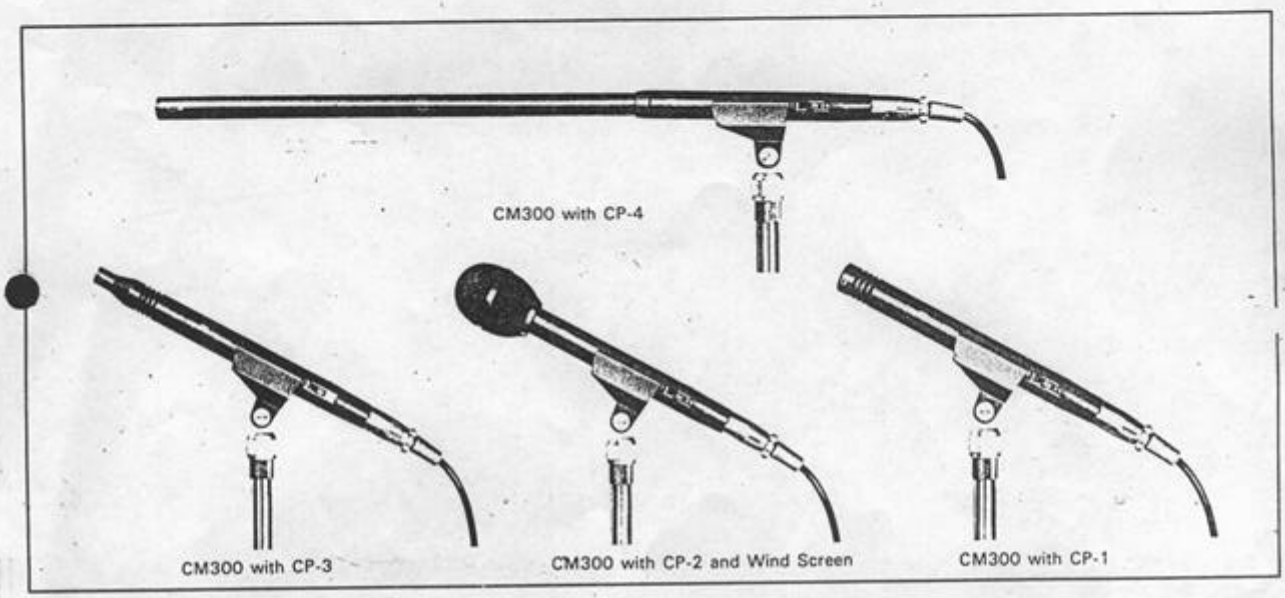
1 mbar = 100 pasc.

Nakamichi

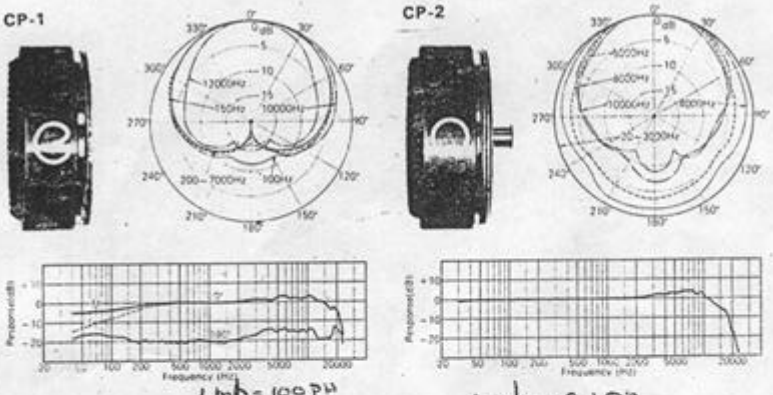
NAKAMICHI

Electret Condenser Microphone CM300



A note on the use of balanced versus unbalanced lines:

Although the CM-300 system microphones each provide a balanced 200 ohm output, the included cables are wired for unbalanced operation. This, of course, makes the microphone system immediately compatible with the three mic inputs on any Nakamichi Cassette Deck. More importantly, however, it points to the fact that balanced lines are to be avoided wherever possible. A balanced line necessitates the use of a transformer at the tape deck input, and even the best of transformers are a source of sound coloration. It should not be necessary to use balanced lines for the lengths of cable provided with the CM-300 system. If longer cables are to be used and potential noise problems exist, the CM-300 microphones can be used with standard two-conductor-plus-shield cables and appropriate connectors to provide fully balanced lines.



1 mb = 100 pa

1 µb = 0,1 pa
10 µb = 1 pa

ELECTRET CONDENSER MICROPHONE

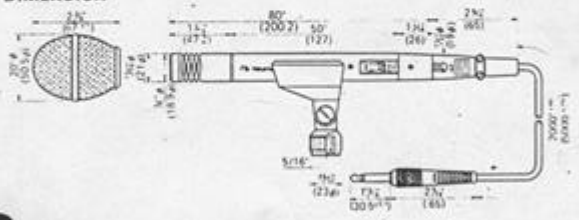
	CP-1 (Cadroid)	CP-2 (Omni)
Frequency Range	30–18,000Hz ± 3,5dB	20–16,000Hz ± 3,5dB
Output Impedance (1kHz)	200ohms ± 20%	
Sensitivity (1kHz 0dB = 1V/µ bar)	−76dB ± 2,5dB (= 1,58mV/PA)	
Attenuation Pad	−10dB	
Signal to Noise Ratio(Weighted) (A)	Better than 50dB (= 24dBA)	
Maximum SPL At 3% Distortion	138dB	
Current Consumption	Less than 1mA	
Operating Voltage	7V–10V DC	
Battery	9,1V Mercury	
Dynamic Range	Better than 114dB	
Low Cut	−10dB/100Hz	

1 µ bar = 0,1 PA = 74 db
1 PA = 94 db

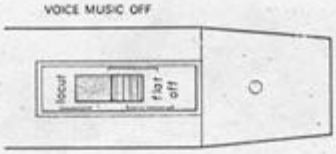
Electret Condenser Microphone
CM300

NAKAMICHI

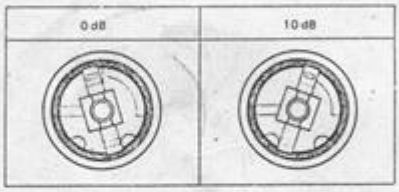
DIMENSION



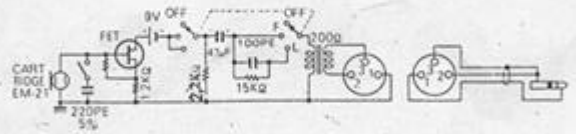
1) **Power Switch**
Leave this switch in the "off" position when the mic is not in use to conserve battery power. Use the "flat" position for normal applications. The "lo cut" position should be used for close-up applications to compensate for proximity effect (boosting of low frequencies).



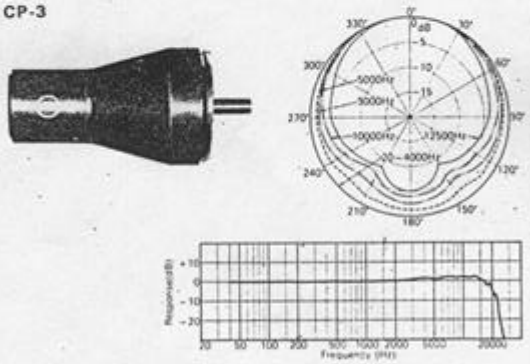
2) **10 dB Attenuator**
The built-in 10 dB pad should be used to avoid preamp overload when excessively high sound pressure levels are encountered. To gain access to the attenuator switch, remove the electret capsule. Move the lever to the desired position as shown in the drawing.



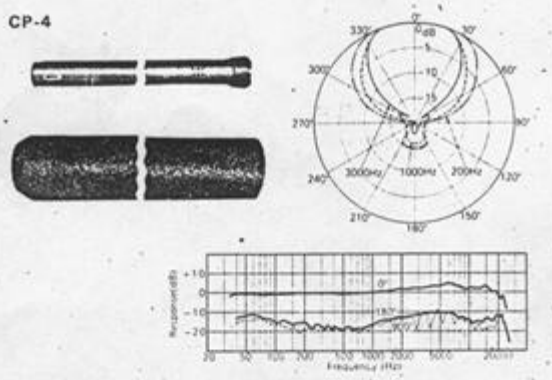
CIRCUIT DIAGRAM



CP-3



CP-4



ELECTRET CONDENSER MICROPHONE

	CP-3(Pin Point)	CP-4(Shot Gun)
Frequency Range	20 – 18,000 Hz ± 3.5 dB	30 – 20,000 Hz ± 3.5 dB
Output Impedance (1 KHz)	200 ohms ± 20%	
Sensitivity (1 KHz 0dB= 1V/u bar)	– 74 dB ±2.5 dB	– 76 dB ± 2.5 dB
Attenuation Pad	– 13 dB	– 10 dB
Signal to Noise Ratio (Weighted)	Better than 46 dB	Better than 50 dB
Maximum SPL At 3% Distortion	136 dB	118 dB
Current Consumption	Less than 1mA	Less than 0.5mA
Operating Voltage	7V – 10V DC	
Battery	9.1V Mercury	
Dynamic Range	Better than 107 dB	Better than 94 dB
Low Cut	– 10dB/100Hz	

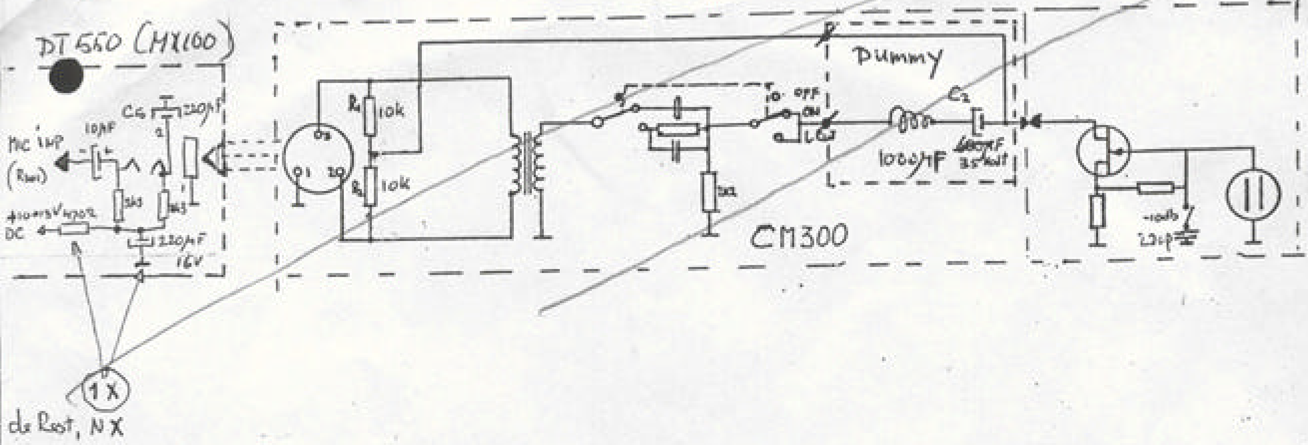
NAKAMICHI RESEARCH (U.S.A.) INC.
West Coast Office
1101 Colorado Avenue.
Santa Monica, Calif. 90404
Phone: (213) 451-5901
Telex: 652429 (NAKREI SNM)

TransTec b[illegible]
Schiedamsevest[illegible]
Tel. 010-14[illegible]
Rotterdam

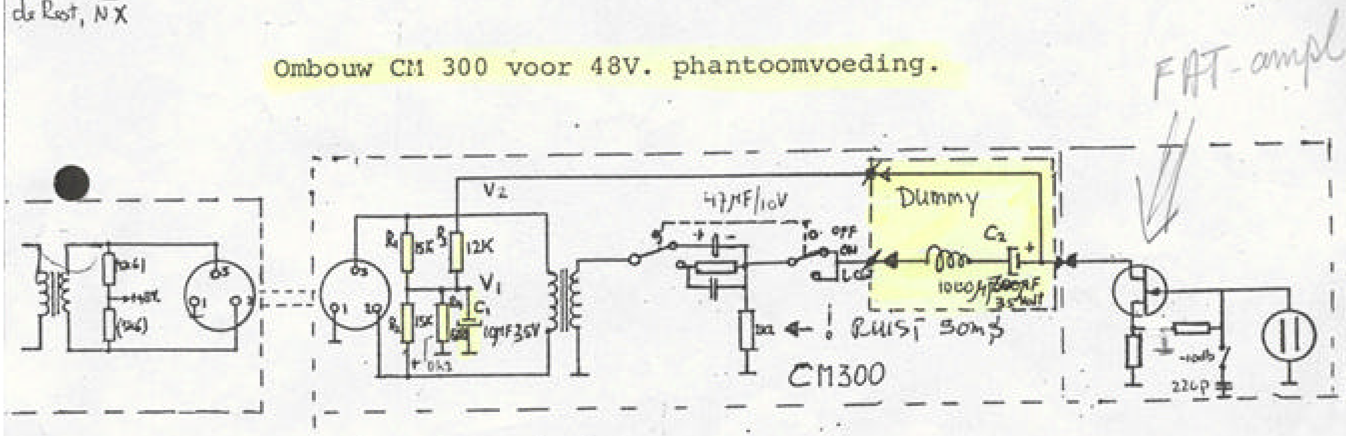
NAKAMICHI RESEARCH INC.
1-153 Suzukicho, Kodaira, Tokyo
Phone: (0423) 42-1111
Telex: 2832610 (NAKREI J)
Cable: NAKREI KKB

Printed in

Ombouw CM 300 voor 10V phantoomvoeding.

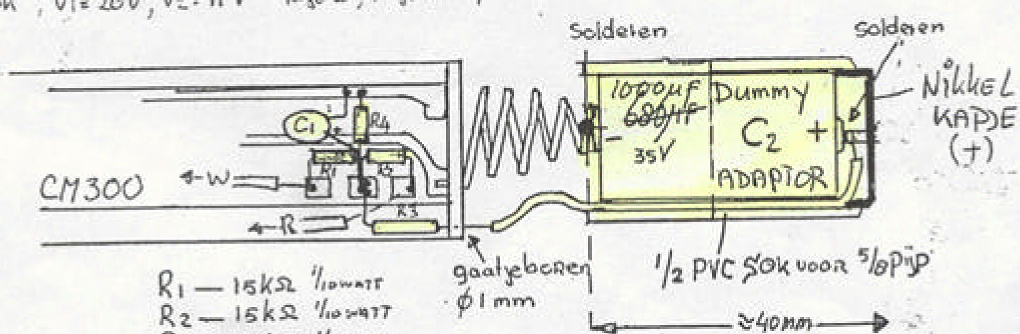


Ombouw CM 300 voor 48V. phantoomvoeding.



* R4 = 8k2 ; V1 = 17V ; V2 = 9V STD.

* R4 = 10k ; V1 = 20V ; V2 = 11V lage D, hogere dynamiek



R1 — 15kΩ 1/10watt
R2 — 15kΩ 1/10watt
R3 — 12kΩ 1/10watt
R4 — 8,2kΩ 1/10watt
C1 — 10 µF 35Volt
C2 — 680µF 35 AXIAAL

Sign-Ruisafstand met B&K spec calibrator adaptor gemeten

≈ -77 dBA ± 2db t.o.v. 94 dBA (1PA) = 17 dbA !

gem signaal p met CP2 = 2 - 2,5 mV/PA